

What is claimed is:

1. An organic EL element drive circuit for current-driving organic EL elements in a manner that a display period corresponding to a horizontal scan period and a reset period corresponding to a retrace period of a horizontal scan line are provided and said organic EL elements are current-driven through terminal pins in the display period and terminal voltages of said organic EL elements are reset in the reset period, said organic EL element drive circuit comprising:

switch circuits for resetting said organic EL elements by setting anode sides of said organic EL elements to a predetermined potential through said terminal pins in the reset period;

peak current generator circuits for generating peak currents superposed on the drive currents of said organic EL elements;

a reset inhibit circuit for inhibiting a resetting by said switch circuits and stopping generation of the peak currents by said peak current generator circuits; and

determination means for determining whether the drive current for the current display period is substantially the same as that in the display period of a next horizontal scan line, said reset inhibit circuit being actuated to inhibit the resetting and stopping the generation of the peak current when said determination means determines that the drive current for the display period of a current display period is substantially the same as that of a next horizontal scan line.

2. An organic EL element drive circuit as claimed in claim 1, further comprising a scan circuit for setting a cathode of said organic EL element to be scanned in vertical direction to a predetermined reference potential and pulling up a cathode of said organic EL element whose scan is over, to the predetermined reference potential or higher, wherein said horizontal scan line is sequentially selected as a vertical scan line by said scan circuit.
3. An organic EL element drive circuit as claimed in claim 2, wherein said determination means determines for each of the terminal pins whether the drive current for the current display period is substantially the same as that in the display period of a next horizontal scan line and said reset inhibit circuit is actuated to inhibit the resetting of the OEL element connected to the terminal pin of which the drive current is substantially the same as that of a next horizontal scan line.
4. An organic EL element drive circuit as claimed in claim 3, wherein said terminal pins are provided correspondingly to respective said horizontal scan lines, a plurality of current sources having output pins connected to respective said terminal pins, the predetermined reference potential is ground potential, each of said switch circuits is provided between said output pins and a line of the predetermined potential and performs the resetting in response to a timing control signal for separating the display period from the retrace period, said reset inhibit circuit inhibits

the resetting by blocking the timing control signal supplied to said switch circuit.

5. An organic EL element drive circuit as claimed in claim 4, wherein said reset inhibit circuit stops an operation of said current source corresponding to said terminal pin when the resetting of a certain one of said terminal pins, to make an output impedance of said output pin high.

6. An organic EL element drive circuit as claimed in claim 5, further comprising a D/A converter circuit for generating a current for driving said current source by D/A-converting display data, wherein the stoppage of operation of said current source is performed by stopping the operation of said D/A converter circuit.

7. An organic EL element drive circuit as claimed in claim 6, wherein said judge means compares the display data of respective said terminal pins in the current display period with the display data of the display period of the next horizontal scan line.

8. An organic EL element drive circuit as claimed in claim 7, further comprising a register, wherein said judge means sets a result of judgement in said register as 1-bit data, said reset inhibit circuit includes a first and second logic circuits supplied with the timing control signal, said first logic circuit generates a logic signal for inhibiting the resetting in response to the 1-bit data set in said register and said second logic circuit generates a logic signal for stopping the generation of peak current.

9. An organic EL element drive circuit as claimed in

claim 7, wherein said line having the predetermined potential is a constant voltage line provided commonly for said output pins for one horizontal scan line and said judge means compares the display data for one horizontal scan line.

10. An organic EL element drive circuit as claimed in claim 9, wherein said organic EL element is provided for each of R, G and B display colors, said constant voltage line is provided commonly for said output pins of a horizontal scan line of each of R, G and B display colors.

11. An organic EL element drive circuit as claimed in claim 10, wherein each of said current sources and each of said D/A converter circuit are integrated as an IC and said output pins of the one horizontal scan line are assigned to said ICs.

12. An organic EL display device comprising an organic EL element drive circuit as claimed in any of claims 1 to 11.